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Shepherd

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(54) **PIPE CUTTING APPARATUS**

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(57) **ABSTRACT**

A pipe cutting apparatus (10), especially for cutting or machining a plastics, resin or soft-metallic pipe (20), comprises a frame (30a, 30b; 32a, 32b) for receiving the pipe (20) to be cut, and cutting means (102) rotatable by externally powered drive means (60) with respect to the pipe (20) to perform a cut, wherein the cutting means (102) comprises a cutting tool (102) carried on a pivotally mounted tool holder (100) and biased into cutting relationship with the outer surface of the pipe (20) by biasing means such as a coil spring (104). The tool holder (100) on which the cutting tool (102) is mounted preferably further comprises means (106) for limiting the maximum depth of a single given cut able to be performed in a single pass by the cutting tool (102) as it is rotated with respect to the pipe (20) held in the frame, as well as limiting means (108) for defining the maximum depth of a plurality of cuts able to be performed by that plurality of cuts of the cutting tool (102) as it is rotated through that plurality of cutting revolutions with respect to the pipe (20) held in the frame. Examples of pipe cutting or machining operations the apparatus may be used for include:

complete cutting-through of the pipe wall, eg. by a transverse cut;

partial cutting-through of an outer surface or wall of the pipe;

stripping of one or more outer layers from the outer surface of the pipe, to allow the pipe to be joined to another by butt-fusion;

removal of irregularities from the outer surface of the pipe, for providing a cut end of the pipe with a clean,

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